IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No. : 09/971,946 Confirmation No. 4092

Appellant : Jean-Patrick Azpitarte

Filed : October 4, 2001

TC/A.U. : 2152

Examiner : Dohm Chankong

Docket No. : 01-600 Customer No. : 34704

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313

REVISED APPEAL BRIEF

Sir:

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This is an appeal to the Board of Patent Appeals and Interferences from the final rejection of claims 13 and 15 - 25, dated September 19, 2005, made by the Primary Examiner in Tech Center Art Unit 2152.

REAL PARTY IN INTEREST

The real party in interest is the Appellant Jean-Patrick Azpitarte.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant or Appellant's legal representative which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 13 and 15 - 25 stand rejected and are on appeal. Claims 1 - 12 and 14 have been cancelled. A copy of claim 13 as amended by the Amendment being filed concurrently is included in Appendix A along with claims 15 - 25 on appeal.

STATUS OF AMENDMENTS

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An amendment after final rejection was filed on January 18, 2006. In an advisory action mailed February 14, 2006, the Examiner indicated that the amendment after final rejection would be entered for the purposes of appeal.

While preparing the instant brief, an inadvertent typographical error in claim 13 was noted. Attached hereto is an amendment correcting this error.

SUMMARY OF CLAIMED SUBJECT MATTER

As set forth in claim 13, the present invention relates to a system (see FIG. 1) for remotely and automatically controlling, by a facilities management company, maintenance of facilities (33) by a maintenance company (1) with regards to a contract binding the maintenance company to the facilities management company. (See page 1, penultimate line, to page 2, line 2, of the specification.) The system comprises local monitoring units (31, 32) (see FIGS. 1 and 2 and page 6, line 11 et seq. of the specification). Each local monitoring unit (31, 32) is installed in close proximity to at least one piece of the facilities and associated thereto. (See page 2, lines 2 - 3 of the specification.) Each local monitoring unit (31, 32) comprises means (41 - 44) for measuring operation parameters of the associated piece of facilities for detecting an operational state thereof, control means (45) for allowing a maintenance technician to real time notify the start and end time of his maintenance or repair task performed on the associated piece of

facilities or to notify that the associated piece of facilities is out of order for a long period because works are in progress, which control means is independent from the operational state of the associated piece of facilities, a transmission network (10, 11), and means (47) for transmitting through said transmission network said detected operational state of said associated piece of facilities and said maintenance task start and end time, a first and a second computer (21, 22) with each said computer being connected to the local monitoring units through the transmission network (10, 11) and comprising means for receiving and processing the detected operational state and the maintenance task start and end times transmitted by the local monitoring units, and means for storing all information transmitted by the local monitoring units. The first computer (21) is available to the maintenance company (1) and is used to manage the maintenance of the facilities, and the second computer (22) is available to the facilities management company (2) and is used to automatically control the maintenance and repair tasks performed by the technicians of the maintenance company on the facilities with regard to their contractual obligations. (See FIGS. 1 and 2, also see page 5, line 18 to page 6, line 31 of the specification.)

The means for measuring operation parameters of the associated pieces of facilities for detecting an operation state thereof comprises a monitoring unit (41) which includes a processor such as a microcontroller and memories and equivalents thereto and input units (42, 43) having several input channels for connection to on-off or analogue measurement points or also to sensors placed on the facility (33) to be monitored and equivalents thereto. The measuring means further comprises output units (44) which allow tests to be carried out by sending

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commands to the facility and measuring the responses to these commands using the input units (42, 43).

The control means for allowing a maintenance technician to real time notify the start and the end time of his maintenance or repair task performed on the associated piece of facilities or to notify that the associated piece of facilities is out of order for a long period because works are in progress comprises the control and display devices (45) and equivalents thereto. The control and display devices (45) are designed for allowing a maintenance engineer to signal the beginning and end of his servicing on the facility.

The means for transmitting through said transmission network the detected operational state of the associated piece of facilities and the maintenance task start and end time comprises a link (47), which can be of the serial type, and equivalents thereto. The link (47) is connected to a connection socket external to the casing designed to be coupled to the other local units on the site. A central processing unit (50) is connected to the link (47), which central processing unit is connected to a modem (51) designed for connection to the telephone network. The central processing unit (50) carries out a regular enquiry of the monitoring units via the serial link for receiving the malfunction and fault information detected by the local units (31, 32).

The means for receiving and processing the detected operational state and the maintenance task starts and end times are the first and second computers (21, 22) and equivalents thereto. As set forth in the specification, the computers (21, 22) are for example microcomputers such as a PC. Associated with the computers (21, 22) is a database for storing all

information transmitted by the local monitoring units. (See page 8, line 35 et seq. of the specification).

As set forth in claim 15, each of the local monitoring units (31, 32) comprises means for preventing the local monitoring unit from transmitting through the transmission network information relating to the detected operational state of the associated piece of facilities between the start and end times of the maintenance, repair or works task signaled using the control means. (See page 2, lines 28 - 32 of the specification).

It is the local monitoring unit (41) which forms the means for preventing set forth in the claim. See page 10, lines 19 - 24 of the specification.

As set forth in claim 16, each of the first and second computers (21, 22) is connected to a data base collecting all information relating to the facilities and maintenance thereof, and the information transmitted by said local monitoring units. (See page 2, lines 33 - 35 of the specification.)

As set forth in claim 17, the first and second computers (21, 22) comprise means for counting a number of maintenance tasks carried out for each piece of the facilities during a first period of time, for comparing the maintenance task number to a first threshold, and for displaying a first maintenance fault signal if the maintenance task number does not reach the first threshold at the end of the first period of time, means for computing a total duration of the maintenance tasks performed on each piece of said facilities during a second period of time, for comparing said total duration to a second threshold, and for displaying a second maintenance fault signal if said total duration is not at least equal to said second threshold at the end of said second period of time, means for

computing an elapsed time between a time when a piece of said facilities is detected as malfunctioning and the start time of a repair task on said piece of facilities, for comparing said elapsed time with a third threshold, and for displaying a third maintenance fault signal when said elapsed time exceeds said third threshold, and means for comparing a restart time to put a piece of said facilities to a normal operational state after the start time of a repair task on said piece of facilities with a fourth threshold, and for displaying a fourth maintenance fault signal when said restart time exceeds said fourth threshold.

(See page 3, lines 2 - 21 of the specification.)

In other words, the computers (21, 22) are each programmed to carry out the various functions set forth in claim 17. Also see page 9, line 22 to page 11, line 20 of the specification for a description of the computers performing the functions set forth in the claim.

As set forth in claim 18, the second computer (22) comprises means for computing penalties to be applied to the maintenance company if a maintenance fault concerning the exceeding of one of the four thresholds have been detected by the second computer. (See page 9, lines 9 - 16 of the specification and FIG. 4a; also see page 3, lines 26 - 29 of the specification). As noted above in connection with claim 17, it is the programming of the computer which allows the computer to carryout the claimed function.

As set forth in claim 19, the first and second thresholds are set as a function of the facilities. The third and fourth thresholds are defined as a function of the detected malfunction or type of repair. The thresholds are defined by a maintenance contract binding the maintenance company to the managing company. (See page 3, lines 30 - 34 of the specification.)

As set forth in claim 20, transmissions between the local monitoring units (32) and the first and second computers (21, 22) are carried out through a basic wire (10) or radio telephone (11) network. The local monitoring units (32) further comprises means (51 - 53) for setting up a link between the local monitoring units and the first and second computers through a radio telephone network, when the local monitoring units cannot access a basic telephone network. (See page 4, lines 21 - 28 of the specification; also see FIG. 2 and page 6, line 36 to page 7, line 11 of the specification).

The means for setting up a link between the local monitoring units and the first and second computers are the modem (51) or the interface circuit (52) and the modem (53) and equivalents of these structures.

As set forth in claim 21, at least one local monitoring unit (32) of a group of the local monitoring units which is installed close from one another comprises a data transmission unit. The data transmission unit comprises means (51 - 53) for transmission over the basic telephone network and means for transmission over the radio telephone network. (See FIG. 2 and page 4, lines 29 - 31 of the specification.) Other local monitoring units of the site comprise means for connection to the data transmission unit. (See page 4, lines 32 - 34 of the specification.)

The means for transmission over the basic telephone network is the modem (51). The means for transmission over the radio telephone network is formed by the interface circuit (52) and the modem (53). As set forth on page 4, lines 32 - 34, a single transmission unit (51) and/or (52, 53) can be connected to several local units (41).

As set forth in claim 22, the radio telephone network transmission means (52) in the data transmission unit (32) is provided with a backed-up power supply for sending a power supply fault message when the local monitoring unit is no longer powered. (See FIG. 2 and page 7, lines 12 - 19 of the specification.)

As set forth in claim 23, each of the local monitoring units (31, 32) comprises means for detecting internal faults pertaining to operation of the local monitoring unit, and means for sending malfunction information to a third computer if such internal faults are detected. The third computer (23) is connected to the local monitoring units through the transmission network and comprising means for receiving and processing and storing into a database the internal malfunction information transmitted by the local monitoring units. (See FIG. 1 and page 4, line 35 et seq. of the specification.)

The means for detecting internal faults pertaining to operation of the local monitoring unit is the monitoring unit (41). The means for sending malfunction information to the third computer are the networks (10) and (11). The means for receiving and processing and storing the internal malfunction information is the programming of the third computer (23).

As set forth in claim 24, each of the local monitoring units comprises means for starting a first timer (T_1) after a malfunction has been detected on the associated piece of facilities, means (41) for starting a second timer (T_2) if the first timer has timed out without the corresponding fault having disappeared, means (41) for sending a malfunction message to the first and second computers (21 and 22 or 23) if the second timer has timed out without the corresponding fault having disappeared, means for starting a third timer (T_3) after a fault

has disappeared, and means (41) for transmitting a fault disappearance message if the third time has timed out without the corresponding fault reoccurring. (See FIGS. 3a - 3c and page 7, line 25 to page 8, line 21 of the specification.)

The means for starting a first timer after a malfunction has been detected is the monitoring unit (41) in the local units (31, 32), which monitoring unit is connected to sensors.

The means for starting a second timer if the first timer has timed out without the corresponding fault having disappeared is the monitoring unit (410 in the local units (31, 32), which monitoring unit is connected to sensors.

The means for sending a malfunction message to the first and second computers is performed by the processor in the monitoring unit (41) which communicates with the microprocessor (50) via the link (47).

The means for starting a third timer after a fault has disappeared is the monitoring unit (41).

The means for transmitting a fault disappearance message if the third timer has timed out without the corresponding fault reoccurring is the monitor unit (41) and its processor which transmits the fault disappearance to the central processing unit (50) over the serial link (47) so that it can be transmitted to the computers (21, 22, 23).

As set forth in claim 25, a respective duration for each of the first, second, and third timers is determined independently from each other as a function of each malfunction type. (See page 12, lines 25 - 28 of the specification.)

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are as follows:

- Docket No.: 01-600
- (1) The rejection of claims 13, and 15 19 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0172002 to Spira et al;
- (2) the rejection of claims 20 and 21 under 35 U.S.C. 103(a) as being unpatentable over Spira et al. in view of U.S. Patent No. 6,437,692 to Petite;
- (3) the rejection of claims 22 and 23 under 35 U.S.C. 103(a) as being unpatentable over Spira et al. and Petite and further in view of U.S. Patent No. 6,553,336 to Johnson et al.; and
- (4) the rejection of claims 24 and 25 under 35 U.S.C. 103(a) as being unpatentable over Spira et al. in view of U.S. Patent No. 4,568,909 to Whynacht.

ARGUMENT

(A) All Pending Claims Are Allowable Because Spira et al. Is Not Available As A Reference

All of the rejections on appeal depend upon the availability of Spira et al. as a reference. In Appellant's opinion, Spira et al. is not entitled to the benefit of the filing date of the provisional application on which it is based and therefore is not available as a reference.

Appellant has claimed the benefit of a French priority application having a filing date of October 4, 2000. To perfect this priority, Applicant has submitted an English translation of the French priority document. The Spira et al. application has a filing date of March 15, 2001. It claims the benefit of a provisional application; however, the provisional application does not comply with the requirements of 35 U.S.C. 112, first paragraph. The provisional application consists of two pages of

text, a number of marketing or promotional brochures, some of which are in German, an overview of the brochures, and a print out of slides of a PowerPoint presentation. In its totality, the provisional application would not enable one of ordinary skill in the art to produce the disclosed and/or claimed Spira et al. invention without undue experimentation. It is further believed that the Spira et al. provisional patent application does not meet the written description or best mode requirements of 35 U.S.C. 112, first paragraph. Thus the Spira et al. patent application is only entitled to its actual filing date, which is after Applicant's effective filing date (the date of Applicant's priority application). Thus, Spira et al. is not available as a reference and the rejection(s) based upon Spira et al. fail.

In the advisory action mailed February 14, 2006, the Examiner takes the position that Spira et al.'s provisional application satisfies the written description requirement. Appellant disagrees. The function of the written description requirement is to ensure that the inventor had possession, as of the filing date of the application, of the specific subject matter later claimed by him. See in re Wertheim, 541 F.2d 257, 262 (CCPA 1976). The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the later claimed subject matter at the time of filing of the application, rather than the presence or absence of literal support in the specification for the claim language. See In re Kaslow, 707 F.2d 1366, 1375 (Fed. Cir. 1983).

The Examiner's analysis in the advisory action falls short of that which is required because the Examiner has not determined that the subject matter of all the claims in the

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published Spira et al. application were in the inventor's possession at the time that the Spira et al. provisional application was filed. For example, claim 1 of the Spira et al. published patent application calls for customer related technical services for obtaining an optimal financial result of a production plant by continuously applying the steps of: providing a process description; utilizing connected software tools and hardware tools, and consulting an empirical database of experience. Appellant can not find any support for this claim in the subject matter of the provisional patent application. Nowhere is there any description of a process for obtaining an optimal financial result of a production plant by applying the steps set forth in claim 1. Similarly, there is no written description in the provisional patent application which would support claims 2 24 and 27 - 50.

With regard to claim 51 in the Spira et al. published patent application, the provisional patent application does not discuss providing a manual of operating principles common to all plants and providing farther information of operating principles common to all plants of a type of plant.

Thus, the provisional patent application in Spira et al. does not have a written description which supports all the claims in the published Spira et al. patent application. For this reason alone, the Spira et al. published patent application is not entitled to the filing date of the provisional Spira et al. application.

With regard to the invention which is being claimed by Appellant, there is no disclosure in the Spira et al. provisional patent application of the claimed local monitoring units, the claimed control means, the claimed first and second computers connected to the local monitoring units, and the

claimed storing means. Since this claimed subject matter can not be found in the Spira et al. provisional patent application, it can not be said that Spira et al. was in possession of the subject matter of claim 13, or any of the other claims on appeal, as of the filing date of the provisional patent application. Thus, Spira et al. provisional patent application would not meet the written description requirement as to the subject matter being claimed by Appellant. Thus, the Examiner is not entitled to rely upon the filing date of the provisional patent application and the Spira et al. published patent application should be removed as a reference.

With respect to the same claims in the Spira et al. published patent application, the Spira et al. provisional patent application also does not meet enablement or best mode requirements of 35 U.S.C. 112, first paragraph. Spira et al.'s provisional patent application is not sufficiently enabling to one of ordinary skill in the art to make and use the invention set forth in claims 2 - 24 and 27 - 51 without undue experimentation because it provides absolutely no guidance as to how to perform the subject matter of the claims. As for the best mode requirement, Spira et al.'s provisional patent application does not provide any mode for performing the subject matter of claims 2 - 24 and 27 - 51 of the Spira et al. published patent application.

With respect to the subject matter of the claims on appeal, for the reasons discussed above, it can not be said that the subject matter of the claims on appeal is enabled by the Spira et al. provisional patent application. There is absolutely nothing in the Spira et al. provisional patent application which provides any guidance as to how one of ordinary skill in the art could arrive at the claimed subject matter or how to make and

use the claimed invention. In Appellant's opinion, significant undue experimentation would have to be performed to arrive at the claimed invention using the disclosure in the Spira et al. provisional patent application. As for the best mode requirement, Spira et al.'s provisional patent application does not set forth any mode for performing the claimed invention. There is no discussion of the claimed local monitoring units, the claimed control means, the claimed first and second computers connected to the local monitoring units, and the claimed storing means.

The disclosure in the Spira et al. provisional patent application is a broad base description of a modular system for performing maintenance. It lacks the details sufficient to show that Spiral et al. possessed the subject matter of each of claims 13 and 15 - 25 on appeal and/or had a disclosure which enabled and/or described a best mode for arriving at the subject matter of each of claims 13 and 15 - 25. Therefore, the Examiner is not entitled to rely upon the filing date of the Spira et al. provisional patent application. Since the Examiner is not entitled to rely upon this date, the Spira et al. published patent application is not available as a reference since Appellant has an earlier effective filing date by virtue of his foreign priority. Since Spira et al. is not available as a reference, all of the rejections of record fail and all pending claims on appeal should be allowed.

(B) Claims 13 and 15 - 19 Are
Not Obvious Over Spira et al.

The object of the invention set forth in claim 13, as well as in dependent claims 15 - 19 is to make data available about the maintenance or repair tasks performed by a maintenance

company on facilities such as electromechanical facilities (elevators, automatic doors or gates, ventilation systems, HVAC or heating systems), in order to automatically control maintenance and repair of facilities by a maintenance company with regards to the contract binding the maintenance company to the facilities management company.

To this purpose, the claimed invention includes local monitoring units each being installed in the vicinity of and attached to one respective monitored machine and being provided with control means, independent from the operational state of the monitored machine, for acquiring a start and end time of each maintenance or repair task performed by a maintenance technician on the associated machine. This maintenance information, and other information about the operational status of the associated machine, is transmitted to central computers which store the received information in a central database. The maintenance and operational state information is analyzed by one central computer in order to determine if the maintenance or repair tasks performed by the maintenance technicians satisfies the contractual obligations of the maintenance company.

The system as claimed allows the facilities management company to automatically and in real time control that the response times for repairing a facility or the frequency with which maintenance operations are performed, which are specified in the maintenance contract, are complied with by the maintenance company. In addition, if the contract provides for specific servicing or restarting time according to failure type, the claimed system allows to automatically and in real time control that these times are respected.

The present invention describes specific means allowing a facilities management company to automatically and in real time control maintenance of facilities by a maintenance company with regards to the contract binding the maintenance company to the facilities management company. Notably, the operation allowed by the system of the present invention is based on the claimed control means of the local monitoring units for allowing a maintenance technician to real time notify the start and end time of his maintenance or repair task, which control means being independent from the operational state of the associated piece of facilities.

An objective reading of Spira et al. shows that Spira et al. do not teach or suggest the system as set forth in the claims. Spira et al. does not teach or suggest a system comprising local units installed near machines to be monitored and comprising means for performing a diagnostic of the condition of the machine, and transmitting the diagnostic information via a network. The Examiner makes reference to "integrated sensors which are used to collect measurements continuously during operation ...", but does not say where the reference teaches or suggests connecting these sensors to any local monitoring unit which comprises in combination means for measuring operation parameters of the associated piece of facilities, means for being connected to a transmission network, means for transmitting through the transmission network the detected operational state of the associated piece of facilities, and control means for allowing a maintenance technician to real time notify the start and end time of his maintenance task performed on the associated piece of facilities. One of ordinary skill in the art reading the Spira

et al. reference would not find such a local monitoring unit having such a combination of elements.

It is submitted that the Examiner's interpretation of Spira et al. is unduly strained. In fact, the Examiner merely isolates some elements of Spira et al., taking them independently of the context from which they function in the Spira et al. system, and combines them artificially in an effort to meet the limitations of the claims. In other words, the Examiner's rejection is nothing more than an attempted hindsight reconstruction of the claimed invention.

According to the claimed invention, the local monitoring units are designed for allowing a maintenance technician to real time signal the beginning and end of his servicing on the facility, which information is transmitted to the maintenance and manager companies' computers. Spira et al. does not teach or suggest such functionality. In fact, Spira et al. can not implement such a real time transmission. Recognizing this, the Examiner states that there is an implied ability to track the start and end time of the work as well as the repair tasks performed during the maintenance by the repairman. Yet, Spira et al. never says that such an ability exists. As noted by the Examiner, there is no disclosure of any means, much less the claimed means, for allowing a maintenance technician to realtime notify the start and the end time of the maintenance. Since there is no disclosure of such means and since there is no recognition in Spira et al. of real time notification, there is nothing in the cited and applied prior art which would motivate one of ordinary skill in the art to modify Spira et al. to provide such a capability. For this reason alone, claim 13 is allowable over the cited and applied prior art.

Concerning point 4 of the Advisory Action, where the Examiner uses the disclosure of Spira et al. (paragraph 0022) about the software modules, Appellant maintains that the software modules of Spira et al. are not at all similar to the local monitoring units of the invention.

Indeed, in Spira et al., the software modules are dedicated to allow a technician to keyboard data about the general operation of the plant. The captures by the technician are moreover not real time but performed in deferred time. Also, there is no stamping of the arrivals and departures of the technicians, but only a capture of their hourly charging in order to calculate the associated costs.

By contrast, in the present invention, the local monitoring units are automatic devices allowing to real time detect the operating faults of the associated piece of facilities and also to real time store and transmit the start and the end time of the maintenance or repair tasks performed by the technician.

Moreover, concerning the claimed local monitoring units associated to each facility to be monitored, the Examiner makes reference to "integrated sensors" cited in Spira et al. (paragraph 0354) to conclude that the claimed local monitoring units would be anticipated. Then, the Examiner seems to assert that the local monitoring units of the invention would be nothing than classical sensors, like the sensors effectively disclosed in Spira et al., which are presented as ordinary sensors, classically used to collect measurements continuously during operation. But the Examiner misreads the limitations regarding the claimed local monitoring units.

Indeed, the local monitoring units of the invention comprises in combination means for measuring operation parameters of the associated piece of facilities, means for

being connected to a transmission network, means for transmitting through the transmission network the detected operational state of the associated piece of facilities, and control means for allowing a maintenance technician to real time notify the start and end time of his maintenance task performed on the associated piece of facilities. This is what can not be found in Spira et al.

Appellant submits that it is not appropriate for the Examiner to try and reduce the claimed local monitoring units of the invention to classical sensors and to merely say that the fundamental and essential functionality of monitoring units of the invention allowing a maintenance technician to real time notify the start and end time of his maintenance or repair task and then allowing a facilities management company to automatically control maintenance of facilities by a maintenance company with regards to the maintenance contract, is an implicit functionality of Spira et al.

Concerning this last point set forth in paragraph 5 of the Advisory Action, Appellant notes that Spira et al. never says that such functionality exists in the maintenance services disclosed.

About this and according to the Examiner, Spira et al. merely indicates that the contract pricing is linked to performance by the maintenance company.

But in fact, the mentioned contract in Spira et al. is more precisely a contract defining maintenance cost objectives, said maintenance being provided to be overall realized for a plant or a set of plants. When Spira talks about contract, it is never described or suggested precise contractual objectives about maintenance like in the present invention, such as:

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- an elapsed time between a time when a piece of facilities is detected as malfunctioning and the start time of the repair task,
- a restart time to put a piece if facilities to a normal operational state after the start time of a repair task,
- a number of maintenance tasks, and
- a total duration of the maintenance tasks.

It is precisely the aim of the present invention to provide a system able to automatically control such maintenance objectives explicitly mentioned in the contract binding the maintenance company to the facilities management company. To this aim, the control means allowing a technician to real time notify the start and end time of his maintenance or repair task are essential means to automatically compare the practical results with the objectives mentioned in the maintenance contract.

Moreover, even if one presumes, as the Examiner, that the maintenance services according to Spira et al. are effectively monitored to insure that the maintenance company is living up to their end of the contract, there is no disclosure in Spira et al. of any means indicating how the maintenance services are concretely monitored, and thus no disclosure concerning the ability to automatically and real time follow the good execution of the contract binding the maintenance company to the facilities management company.

On the contrary, in the Spira et al. disclosure, it is explicitly suggested about the possibility to monitor the maintenance services with the intervention of a *third party* to validate the scheduled reviews (see the passage 0155 cited by the Examiner in paragraph 5 of the Advisory Action).

Spira et al. suggests the opposite of the present invention, which claims on the contrary <u>an automatic control</u> of the execution of the maintenance and repair tasks performed by the technicians of the maintenance company on the facilities with regards to their contractual obligations. So, the intervention of a third party to this aim is clearly incompatible with an automatic control as claimed. The argumentation of the Examiner on this point is then inconsistent.

In conclusion, the Examiner's interpretation of the Spira et al. published patent application is nothing more than an attempted hindsight reconstruction of the claimed invention.

With regard to the rejection of claim 15, the Examiner contends that the functionality to prevent transmissions of malfunctions during an inspection is well known in the art. Yet the Examiner cites no secondary reference to establish this point. Appellant has requested that the Examiner cite a reference teaching or suggesting this functionality and explain why one of ordinary skill in the art would be motivated to provide such functionality to the system of Spira et al. This request has gone unanswered The mere fact that something exists in the prior art is not a sufficient basis to establish a prima facie case of obviousness. Further, the rejection makes reference to Reid's maintenance system; however, the Examiner has cited no reference to any Reid maintenance system. In the advisory action, the Examiner contends that the functionality of claim 15 is met by the on/off switch of a computer. However, it is not clear to Appellant, how the on/off switch of a computer would comprise a local monitoring unit having the claimed preventing means.

With regard to claim 16, the Examiner has not addressed where in Spira et al. can find first and second computers connected to both a data base collecting all information and the information transmitted by the local monitoring units.

With regard to claim 17, thanks to the functionality of the local monitoring units of the invention allowing a maintenance technician to real time notify the start and end time of his maintenance or repair task, in combination with the other claimed features, notably the computer available to the facilities management company, comprising means for receiving and processing the detected operational state and maintenance task start and end times transmitted by the local monitoring units, it is possible to:

- obtain an evaluation of the number of maintenance operation, and more precisely:
- to automatically calculate and display the number of maintenance operation carried out for each monitored facility during a predetermined period of time,
- to automatically comparing said number to a predetermined number defined in the maintenance contract binding the maintenance company to the managing company, and
- to automatically display a maintenance fault signal and calculate penalties if the number of maintenance operations does not reach the predetermined number at the end of said predetermined period of time.
- obtain an evaluation of duration of time spent or maintenance operations, and more precisely:
- to automatically calculate and display the total duration of maintenance operations carried out for each monitored facility during a predetermined duration of time,

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- to automatically compare said total duration to the predetermined duration in the maintenance contract binding the maintenance company to the managing company, and
- to automatically display a maintenance fault signal and calculate penalties if the total duration of maintenance operations does not reach the predetermined duration at the end of said predetermined period of time.
- obtain an evaluation of total time elapses between beginning of malfunction and start of technician's work, and more precisely:
- to automatically calculate and display the elapsed time between the beginning of a monitored facility malfunction and the start of technician's work,
- to automatically compare said elapsed time to the predetermined time defined in the maintenance contract binding the maintenance company to the managing company, and
- to automatically display a fault signal and calculate penalties if said elapsed time exceeds said predetermined time.
- obtain an evaluation of the duration to return facility to its normal operational state, and more precisely:
- to automatically calculate and display the time elapsed between the start of the maintenance task and the return to a normal operational state of a monitored facility,
- to automatically compare said elapsed time to the predetermined time defined in the maintenance contract binding the maintenance company to the managing company, and

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- to automatically display a fault signal and calculate penalties if said elapsed time exceeds said predetermined time.

About this set of features, the Examiner merely points out the paragraph 0302 of Spira et al. and concludes that the claimed subject matter is present. Paragraph 0302 says: "An online service provides direct help through specialists communicating directly with the technical plants via telephone and data networks or satellite links. Detection of faults is possible in the shortest time and location of the faults is provided. In one example, software faults are cured by interactive transfer of programs and data." In fact, this paragraph is very far from the fault signalization according to claim 17. The cited portion of Spira et al. concerns the maintenance of software modules described in Spira et al. to implement the proposed maintenance services. Therefore, the cited portions in Spira et al. do not support the Examiner's contention and is clearly not related at all to the concerned features.

Claim 18 is allowable for the same reasons as claim 17. There is no explicit disclosure in Spira et al. of the claimed subject matter. Using performance indicators to evaluate effectiveness of the maintenance can mean many things. It is not a disclosure of a second computer having means for automatically computing penalties to be applied to the maintenance company if a maintenance fault concerning the exceeding of one of four thresholds has been detected by the second computer.

Claim 19 is allowable for the same reasons as claim 13 as well as on its own accord. There is no disclosure in Spira et al. of setting a pair of thresholds as a function of the

facilities and setting a second pair of thresholds as a function of the detected malfunction or type of repair.

Once again, objectively, there is no explicit disclosure in Spira et al. of the ability to real time notify start and end time of maintenance tasks, allowing to automatically calculate specific parameters as the number of maintenance tasks carried out for each piece of facilities during a period of time, the total duration of the maintenance tasks performed on each piece of facilities during a period of time, the elapsed time between a time when a piece of facilities is detected as malfunctioning and the start time of a repair task, and the elapsed time between the start time of the maintenance task and the return to a normal operational state, the objective being to automatically compare these parameters to predetermined parameters specified in the contract binding the maintenance company to the facilities management company.

For the foregoing reasons, it is believed that the invention of claims 13 and 15 - 19 would not be obvious to a person skilled in the art from a reading of Spira et al. and thus these claims involve an unobvious inventive step.

(C) Claims 20 and 21 Are
Allowable Over the Combination
Of Spira et al. and Petite

At a minimum, claims 20 and 21 are allowable for the same reasons as claim 13. The Petite patent does not cure the aforenoted deficiencies of Spira et al.

Petite is cited as showing a radio telephone network as a back-up link. The Examiner concludes that it would have been obvious to have incorporated Petite's back-up links into Spira et al. The problem with this modification is that Spira et al.

lacks the claimed local monitoring units and the first and second computers. Petite does not cure this deficiency in Spira et al. For this reason, claim 20 is allowable.

Claim 21 is allowable because neither of the cited and applied references teaches or suggests a local monitoring unit comprising a data transmission unit having means for transmission over the basic telephone network as well as means for transmission over the radio telephone network. Further, neither reference has other local monitoring units comprising means for connection to the data transmission unit.

(D) Claims 22 and 23 Are Allowable Over The Combination of Spira et al., Petite and Johnson

At a minimum, claims 22 and 23 are allowable for the same reasons as their parent claims.

The Johnson patent is relied upon by the Examiner for its showing of a back-up power supply. In particular, the Examiner relies upon column 15, lines 47 - 53, of Johnson. A review of this section shows that it refers to a transducer control module which monitors the primary power source of the asset. If the power source fails, the control module includes an internal battery backup to transmit a power fail report to the monitoring system. It is submitted that claim 22 is allowable because there is nothing in Johnson which teaches or suggests providing the radio telephone network transmission mean in the data transmission unit with a back-ed up power supply for sending a power supply fault message when the local monitoring unit is no longer powered. Thus, there is no teaching or suggestion in any of the references of the claimed subject matter of claim 22.

With regard to claim 23, this claim is allowable because none of the cited and applied references teaches or suggests a local monitoring unit comprising means for detecting internal faults pertaining to the operation of the local monitoring unit and means for sending malfunction information to a third computer. Nor is there any disclosure of a third computer being connected to the local monitoring units. The Examiner offers no reason why one of ordinary skill in the art would be motivated to add a third computer to Spira et al. and why one of ordinary skill in the art would be motivated to send malfunction information to a third computer. Appellant agrees that the ability for a maintenance company to monitor the local monitoring units provides a benefit. However, none of the cited and applied references suggest this. Even if they did, there is nothing in any of the cited and applied references which would lead one to send the malfunction information to a third computer which comprises a means for receiving and processing and storing into a database the internal malfunction information transmitted by the local monitoring units. Johnson does not teach monitoring any internal fault of the operation of a local monitoring unit.

(E) Claims 24 and 25 Are Allowable Over The Combination of Spira et al. and Whynacht

At a minimum, claims 24 and 25 are allowable for the same reasons as their parent claims. Whynacht does not cure the aforenoted deficiencies of Spira et al.

Claim 24 is allowable because neither of the cited references, taken alone or in combination with each other, teaches or suggests all the means set forth in claim 24. In particular, the Whynacht reference does not teach or suggest any

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means for sending a malfunction message to <u>first and second</u> computers if the second timer has timed out without the corresponding fault having disappeared. To show this feature, the Examiner relies upon column 22, lines 10 - 15 of Whynacht. A review of this portion however shows that it refers to what the Examiner has called the first timer, not the second timer. Certainly, there is nothing in this portion which teaches sending the malfunction message to more than one computer.

Claim 25 is allowable because there is nothing in either of the cited and applied references which teaches or suggests determining the duration for each of the timers independently from each other as a function of malfunction type. While the timers in Whynacht may have different durations, the reference is silent as to how these durations are arrived at.

CONCLUSION

For the foregoing reasons, the Board is hereby requested to reverse the rejections of record and remand the instant application back to the Primary Examiner for allowance.

EXTENSION OF TIME AND APPEAL BRIEF FEE

A request for a one month extension of time has previously been submitted along with a check in the amount of \$310.00 to cover the cost of the one month extension of time and the Appeal Brief fees.

Should the Director determine that an additional fee is

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due, he is hereby authorized to charge said additional fee to Deposit Account No. 02-0184.

Respectfully submitted,

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IN TRIPLICATE

Date: July 26, 2007

I, Kasen M. Gill, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on July 26, 2007.

CLAIMS ON APPEAL - APPENDIX A

13. A system for remotely and automatically controlling, by a facilities management company, maintenance of facilities by a maintenance company with regards to a contract binding the maintenance company to the facilities management company, said system comprising:

local monitoring units, each local monitoring unit being installed in close proximity to at least one piece of said facilities and associated thereto, each local monitoring unit comprising:

means for measuring operation parameters of the associated pieced of facilities for detecting an operational state thereof;

control means for allowing a maintenance technician to real time notify the start and the end time of his maintenance or repair task performed on the associated piece of facilities or to notify that the associated piece of facilities is out of order for a long period because works are in progress, said control means being independent from the operational state of the associated piece of facilities,

a transmission network, and

means for transmitting through said transmission network said detected operational state of said associated piece of facilities and said maintenance task start and end times;

a first and a second computer, each computer being connected to the local monitoring units through said transmission network and comprising means for receiving and processing said detected operational state and said maintenance task start and end times transmitted by the local monitoring units, and

means for storing all information transmitted by the local monitoring units, said first computer being available to the maintenance company and being used to manage the maintenance of said facilities, and said second computer being available to the facilities management company and being used to automatically control the maintenance and repair tasks performed by the technicians of said maintenance company on said facilities with regards to their contractual obligations.

- 15. The system according to claim 13, wherein each of said local monitoring units comprises means for preventing the local monitoring unit from transmitting through said transmission network information relating to the detected operational state of the associated piece of facilities between said start and end times of said maintenance, repair or works task signaled using said control means.
- 16. The system according to claim 13, wherein each of said first and second computers is connected to a data base collecting all information relating to the facilities and the maintenance thereof, and the information transmitted by said local monitoring units.
- 17. The system according to claim 13, wherein the first and second computers comprise:

means for counting a number of maintenance tasks carried out for each piece of said facilities during a first period of time, for comparing said maintenance task number to a first threshold, and for displaying a first maintenance fault signal if the maintenance task number does not reach said first threshold at the end of said first period of time;

means for computing a total duration of the maintenance tasks performed on each piece of said facilities during a second period of time, for comparing said total duration to a second threshold, and for displaying a second maintenance fault signal if said total duration is not at least equal to said second threshold at the end of said second period of time;

means for computing an elapsed time between a time when a piece of said facilities is detected as malfunctioning and the start time of a repair task on said piece of facilities, for comparing said elapsed time with a third threshold, and for displaying a third maintenance fault signal when said elapsed time exceeds said third threshold; and

means for comparing a restart time to put a piece of said facilities to a normal operational state after the start time of a repair task on said piece of facilities with a fourth threshold, and for displaying a fourth maintenance fault signal when said restart time exceeds said fourth threshold.

- 18. The system according to claim 17, wherein the second computer comprises means for computing penalties to be applied to the maintenance company if a maintenance fault concerning the exceeding of one of the four said thresholds have been detected by said second computer.
- 19. The system according to claim 17, wherein the first and second thresholds are set as a function of said facilities, and wherein the third and fourth thresholds are defined as a function of the detected malfunction or type of repair, said thresholds being as defined by a maintenance contract binding the maintenance company to the managing company.

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- 20. The system according to claim 13, wherein transmissions between the local monitoring units and the first and second computers are carried out through a basic wire or radio telephone network and wherein the local monitoring units further comprise means for setting-up a link between the local monitoring units and the first and second computers through a radio telephone network, when the local monitoring units cannot access a basic telephone network.
- 21. The system according to claim 20, wherein at least one local monitoring unit of a group of said local monitoring units which are installed close from one another comprises a data transmission unit, wherein said data transmission unit comprises means for transmission over the basic telephone network and means for transmission over the radio telephone network, and wherein other local monitoring units of the site comprising means for connection to said data transmission unit.
- 22. The system according to claim 21, wherein the radio telephone network transmission means in the data transmission unit are provided with a backed-up power supply for sending a power supply fault message when the local monitoring unit is no longer powered.
- 23. The system according to claim 13, wherein each of said local monitoring units comprises means for detecting internal faults pertaining to operation of said local monitoring unit, and means for sending malfunction information to a third computer if such internal faults are detected, said third computer being connected to the local monitoring units through said transmission network and comprising means for receiving and

processing and storing into a database the internal malfunction information transmitted by the local monitoring units.

24. The system according to claim 13, wherein each of said local monitoring units comprises:

means for starting a first timer after a malfunction has been detected on the associated piece of facilities;

means for starting a second timer if the first timer has timed out without the corresponding fault having disappeared;

means for sending a malfunction message to the first and second computers if the second timer has timed out without the corresponding fault having disappeared;

means for starting a third timer after a fault has disappeared; and

means for transmitting a fault disappearance message if the third timer has timed out without the corresponding fault reoccurring.

25. The system according to claim 24, wherein a respective duration for each of the first, second and third timers is determined independently from each other as a function of each malfunction type.

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EVIDENCE - APPENDIX B

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RELATED PROCEEDINGS - APPENDIX C

NOT APPLICABLE